

Application S/N 10/659,677
Amendment Dated: August 3, 2006
Response to Office Action dated: March 14, 2006

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REMARKS/ARGUMENTS

Claims 1-23 are pending in the application. In the Office Action, claims 6, 10, 16 and 19 were rejected under 35 U.S.C. 112, second paragraph as being indefinite. In addition, claims 1-3, 6, 8-10, 13-17, 19 and 21-23 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,282,433 to Holshouser (Holshouser). Also, claims 4, 5, 7, 11, 12, 18 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Holshouser.

Concerning the 112 rejections, claims 6 and 10 have been amended to clarify that the antenna bandwidth enhancing slot directs existing surface currents located on the metallized housing to take multiple paths and thereby introduce multiple resonances. That is, the bandwidth enhancing slot, as those of skill in the art appreciate, does not actually generate surface currents on the metallized housing; it merely redirects them in a manner that increases the bandwidth of the actual antenna. It is the operation of the antenna - which is electrically coupled to the metallized housing such that the housing acts as a ground plane for the antenna - that generates the surface currents on the housing.

Moreover, the slot divides the housing into multiple regions. Because the surface currents cannot pass through the slot, the slot creates divergent paths for the currents to follow. Those of skill in the art appreciate that in view of the structure recited in claims 6, 10, 16 and 19, the surface currents located on the metallized housing take multiple electrical paths. Examples of such paths are clearly shown in FIGs. 2, 5 and 8 of the current application. If the housing did not contain the slot, then the surface currents would take a uniform path, which would not produce the enhanced bandwidth

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for the antenna, as evidenced by the description concerning graph lines 302, 602, 902 and 1002 in respective FIGs. 3, 6, 9 and 10.

Turning to the 102 and 103 rejections, Applicant notes that claims 1 and 21 include the feature that the antenna bandwidth enhancing slot at least increases the bandwidth of the antenna. Further, claims 10 and 16 recite the feature that a slot on the metallized housing directs (causes) electrical currents flowing in the metallized housing to take different paths in order to at least increase the bandwidth of the antenna. Applicant respectfully disagrees with the Examiner that Holshouser describes these concepts.

In particular, the slot in Holshouser is in fact an actual antenna; it radiates signals from the personal communications terminal (see FIG. 3 and col. 3, lines 46-62 and col. 4, lines 7-8). This slot antenna is designed for narrowband, short-range RF communications (see col. 3, lines 7-11). In contrast, the slot recited in the present claims is designed to increase the bandwidth of a pre-existing antenna by redirecting surface currents; it is not designed to radiate electromagnetic waves. In other words, the slot of the present invention actually improves the performance of a wideband antenna, while the slot antenna of Holshouser is designed to accommodate short-range communications and has no effect on the long-range antenna. As further evidence of this contradiction, the slot antenna in Holshouser requires a separate mobile computing interface module having its own transceiver to operate, structure that is not needed by the slot recited in the present application.

As such, Applicant submits that independent claims 1, 10, 16 and 21 are patentable over the prior art. Applicant also believes that those claims that depend from

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independent claims 1, 10, 16 and 21 are patentable, both based on their dependencies on the independent claims and their patentability on their own. Reconsideration and withdrawal of the rejection of the claims is respectfully requested. Passing of this case is now believed to be in order, and a Notice of Allowance is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

The Commissioner is hereby authorized to charge any necessary fee, or credit any overpayment, to Motorola, Inc. Deposit Account No. 50-2117.

Respectfully submitted,

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